

ment of the British Society for Freedom in Science, embodied in Dr. Bridgman's article, states that "J. D. Bernal's book, 'The Social Function of Science,' became a keystone of the movement against free science." It is said further that "the Association of Scientific Workers adopted the movement as a part of its policy, and has worked energetically on its behalf ever since, both privately and in public."

As a founding member and past vice-president of the American Association of Scientific Workers (A.A.Sc.W.), I am much interested in the reference to the British Association of Scientific Workers. It is not my intention to enter into the merits of the British controversy, though, to put it mildly, it seems unfair to portray the British Association of Scientific Workers as the enemy of all free science. I shall, however, appreciate an opportunity to explain what, to me as an individual, seems to be the place of the American Association of Scientific Workers in this debate. While friendly to the British Association of Scientific Workers, the American Association of Scientific Workers is a wholly independent organization.

No one who has witnessed the developments of the past decade can deny that research in applied science, dedicated to the solution of specific problems affecting human welfare, will have a prominent place in the postwar organization of scientific research. It is inevitable, and probably not to be deplored, that in future years planning and cooperation in science will become increasingly important. The first article of the aims of the American Association of Scientific Workers states unequivocally that the organization will support developments along these lines. This does not, however, imply that the American Association of Scientific Workers will favor, desire or tolerate the suppression of pure research. If there are members of the American Association of Scientific Workers who hold such views, I am unaware of their existence. The fourth article of the aims of the American Association of Scientific Workers states that the organization is dedicated to "safeguarding the intellectual freedom and professional interests of scientists."

Dr. Bridgman's introductory paragraph refers to the original Kilgore Bill. An official pronouncement on this bill by the American Association of Scientific Workers was made by the Boston-Cambridge Branch, which issued a three-fold report on this controversial but highly important bill. After discussion of the Kilgore Bill by the membership, three subcommittees were appointed, one composed of members favoring the bill, another of those favoring the bill with certain definite modifications, the third of those opposing the bill. Each committee prepared its report, and the three reports together were then released publicly. In

the American Association of Scientific Workers there is room for divergent views. In the past four years the organization has profited by the lessons learned from certain errors in the first two years of its existence.

While not saying so outright, Dr. Bridgman's article implies that American scientists should band together to protect freedom in science. I can see no need for such a course. The existing professional societies, from the American Association for the Advancement of Science and Sigma XI, to the American Association of Scientific Workers, form a wholly sufficient bulwark against possible encroachments upon the rights of freedom in science. A new society dedicated exclusively to the defense of freedom in science has little positive contribution to offer. Greater benefits can result from the support of organizations that attempt to analyze and appraise with care various proposals relating to the place of planning in postwar scientific research in the United States. This is not the time for a return to the "ivory tower."

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#### VISITING RESEARCH PROFESSORSHIPS

THE ranks of retired professors are increasing at an astonishing rate. This calls for some sort of inventory of the contributing factors and a legitimate forecast in higher education. Among the contributing factors to the availability of distinguished professors are the following: (1) rising longevity and improvement in physical and mental health; (2) rise in the number of professors retiring for age in colleges and universities; (3) rise in the number of institutions providing retirement pensions; (4) increase in superior facilities for intensive and sustained projects in research; (5) increased emphasis on research in American universities; (6) prevailing frustration at the time of forced retirement; (7) need of recognized status at this stage; (8) growing recognition of individual differences in health, interests, skills in research and leadership; (9) the tragic need of supplementing the bread-and-butter provisions of retirement plans with opportunities for rounding off a scholarly career in creative work.

In view of these facts it is timely to ask, in the interest of advancement of knowledge and learned service to mankind, what can be done to encourage continuity in creative scholarship on the part of distinguished professors after retirement on an adequate pension plan. One of the first steps for leaders, authorities and associations in higher education might be to recognize this new group by giving them academic status in the continuation of their scholarly pursuits.

While there are manifestly many kinds of overlapping, acquaintance with the present group of retired professors reveals three general classes: (1) those who for reasons of health or other circumstances seek rest and recreation, and welcome freedom from academic activities; (2) those who have an urge to teach, lecture or engage in other special activities on their own initiative; (3) those in good health who are endowed with a zeal for creative work and are entitled to the best facilities for research and writing. For the first group, the retirement is welcome and they should be encouraged to enjoy their earned freedom from academic work. Those of the second group usually have good connections and can transfer to another institution for a year or more of teaching or lecturing under the title of visiting professor or they may engage in other special activities and services, vocational or avocational. It is with the third group that we are here primarily concerned.

In view of the present tendency for the stipulation of retirement plans to deprive these scholars of the privileges and responsibilities for continuity in well-established research projects and for delving into new ventures which are the outgrowth of these in their home institutions, there is urgent need of new concepts and agencies to meet this relatively new situation. A key to the new vantage ground might take the form of a formal implementing of the term "visiting research professor." This should unlock the door to great opportunities by promoting migration as well as by encouraging new devices for the development of a new status in the home institution.

Here it should be observed that the underlying policy of retirement plans, providing for the stepping aside of the old professors to give full sway and responsibility to younger men, is a sound policy and should be mutually advantageous. The adoption of standard retirement plans is a comparatively new venture in higher education and is a blessing to many a retired professor in so far as the bread-and-butter issue is concerned, but in many cases the financial provision is not the primary need of an able professor. He needs access to laboratories, libraries, research institutions, field projects and other forms of public and private highly technical service. He needs time and facilities for productive writing. In many cases he needs and can command very substantial additions or substitutions for his retirement allowance. He needs facilitation of inter-institutional migration and travel. He needs a well-earned and highly honored academic or professional status.

Who, then, needs all these things, of which the pension allowance is but a trifle? It is the professors in this third group, whether they come from small col-

leges or great universities, who may be at critical points of bringing to rich fruitage the seeds they have sown and cultivated in their professional careers. Their skill and professional proficiency in learned careers may have earned them encores, so that they may now take bows and play extra numbers in service to mankind.

We now have the well-established rungs on the academic ladder in America—the preschool and kindergarten, primary, elementary, secondary, junior college, standard college and graduate school. Now on top of this towering ladder let us put a capstone, the status of visiting research professor. Let universities and industrial and professional institutions enrich themselves by a hearty recognition of their successful sponsoring at this highest level of higher education, let educators announce to their constituency that there is such a new field of operation and encourage them for self-orientation in preparation for this highest venture, and let presidents and directors of higher institutions proceed in an aggressive policy for co-operation and self-help in the promotion of this policy.

The foundations have been contributors to this interest and there is increasing room for their initiative in opening new fields by priming policies and for sustaining activities. The rapidly developing interest in pure and applied science in industry opens new vistas for a short period of employment of retired professors recognized as specialists and authorities in their respective fields. The post-war demand for applied learning in laying foundations for a new world order and a new type of social and political cooperation and organization makes serious demands upon ripe scholarship in concentrated service. The positions open may not be called professorships, but they will have the equivalent academic status in the learned world.

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### GEOMORPHIC SIGNIFICANCE OF VALLEYS AND PARKS OF THE KAIBAB AND COCONINO PLATEAUS, ARIZONA

A LATE-TERTIARY peneplane in the Grand Canyon district has been postulated by C. E. Dutton,<sup>1</sup> W. M. Davis,<sup>2</sup> Douglas Johnson<sup>3</sup> and H. H. Robinson.<sup>4</sup> Davis discussed several lines of evidence for the existence of this peneplane, which he considered to have closed the "plateau cycle" of erosion, or "great denu-

<sup>1</sup> C. E. Dutton, *U. S. Geol. Survey, Monograph II*, 1882.

<sup>2</sup> W. M. Davis, *Bull. Mus. Comp. Zool.*, 38: 107-201, 1901.

<sup>3</sup> Douglas Johnson, *Proc. Boston Soc. Nat. Hist.*, 34: 135-161, 1909.

<sup>4</sup> H. H. Robinson, *Am. Jour. Sci.*, 34: 109-129, 1907; *Jour. Geol.*, 18: 742-763, 1910.